Twenty-five years ago, in June 1996, a devastating rupture of the Colonial Pipeline in southern Greenville County released a million gallons of diesel fuel to the Reedy River. The Greenville News front-page headline, "Now it's called the River of Death," ominously foretold the spill's impacts, as it literally killed 22 miles of the Reedy. After years of investigation, fines, and litigation, the State settled its civil claims against Colonial for negligence of its pipeline and environmental damages. The State's action resulted in a Reedy River Restoration Plan, and a fund to help the river recover, and to protect it going forward.

The State's plan provided the opportunity for a small group of conservationists, including myself, to bring attention to a vastly more serious and urgent threat to the Reedy. We advised the Governor, and the directors of SCDHEC and SCDNR, that without thoughtful and timely action, the impacts of a catastrophic failure of the neglected, century-old Lake Conestee Dam would by far surpass those of the Colonial spill.

Based on the weight of these concerns we were encouraged to request funds from the State to purchase the 150-acre lake tract, including the dam. Our proposal emphasized, "The singular compelling justification for the 'Conestee Project' is to protect the Reedy River." Convinced of the imminent risk posed by the deteriorating dam, the State's restoration trustees enthusiastically approved our request. The promise of averting another impending environmental disaster was recognized as a good investment of a tiny fraction of the State's settlement funds. Creating a nature preserve from the old lake property, if proven safe, would provide a wonderful collateral benefit for Greenville, but that was not the primary objective, mission, or priority of the 'Conestee Project,' as authorized.

That deal was contingent on several critical commitments, and involved a multitude of agencies, conservation organizations, and private parties. A series of studies would be required to thoroughly evaluate contamination in the sediments of the long-disparaged and little-understood Lake Conestee, and to assess the highly suspect condition of the dam. Insights from these studies would hopefully lead to a long-term care plan for the lake property and the dam (together referred to here as the "Site"). SCDHEC was an essential partner in agreeing to help facilitate this work.

When the dam was built, in 1892, its simple purposes were to generate power and provide water for Reedy River Manufacturing Company (Conestee Mill). Upstream, industrial growth created an economic boom, but also caused as-yet unrecognized impacts. For decades, with little or no regulations for its protection, the Reedy carried an ever-growing burden of pollution, one hugely disproportionate to its size. **Regulators and environmentalists alike knew the Reedy as the most polluted river in the state.** A 1969 fisheries report characterized it as "devoid of life." Thanks to the Clean Water Act of 1972, environmental regulations, and improved practices, the Reedy River has substantially recovered, even from the fuel spill. But, the Reedy still has far to go to be considered clean, healthy, fishable, and suitable for recreational contact.

In late 2000, we began investigations of the nature and extent of contamination in the old Lake Conestee millpond, already nearly filled with sediment by then. Exhaustive testing and analysis of submerged and exposed sediments from the entire lake area, and in the downstream Reedy were completed in 2004. The results were extremely troublesome, revealing that the millions of tons of sediment trapped in the former lake were thoroughly infused with a remarkably diverse "chemical stew" of 20th-century industrial contaminants. Dozens of hazardous substances were found, in nearly every sample, and at worrisome concentrations. Many of the compounds found have human health and ecological effects so significant that they are now highly regulated, and some were banned altogether in the 1970s.

As we progressively reconstructed the Reedy's industrial history, we realized the contaminants had originated from hundreds of locations in the 65 sq.mi. watershed upstream, including several notorious hazardous waste sites. While Greenville had prospered on the back of the Reedy for more than a century, the unwanted wastes of its industries had been flushed down the river, a dark legacy of the pre-regulatory

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past. Where the river slowed, at the first impoundment downstream from Greenville, contaminant-laced sediments accumulated. We now understood, Greenville's dregs had come to rest in Lake Conestee.

Because of the scale and complexity of this Site, we agreed with SCDHEC, the best remedy for managing these contaminated sediments, and mitigating the risks to humans and the environment, was to contain them in place behind the dam, minimize their disturbance, and allow cleaner sediments to cap the site naturally over time. Comprehensive remediation of the Site would simply be prohibitively costly.

Unfortunately, that site management strategy depended on the integrity of the antiquated dam, steadily disintegrating over time. Since 2000, four independent engineering studies, and dozens of inspections by dam experts and regulatory officials have verified the Lake Conestee Dam is in "Poor" condition. Compared to current engineering standards it is woefully deficient, and it has no acceptable factor of safety. As time accelerates its decay, it is more vulnerable to failure with every day that passes.

The Site's contaminant profile combined with the condition of the dam now make it clear the threat we anxiously foresaw back in 1999 had been grossly understated. The Lake Conestee Site presents us with a large, complex, and serious repository of enormous quantities of contaminants of concern. It will require perpetual care. The "ticking time bomb" that is the dam is simply not up to the job of containing this huge mass of contaminated sediments. Even more disconcerting, the dangers manifested in this situation are multiplied by the realities that an urban river runs through it, and public water supplies and public riverfront parks are located downstream. As a result, this Site should be considered far more perilous than any other hazardous waste site in Greenville County.

There is no question, the Lake Conestee Dam is a very real and present danger, a disaster waiting to happen. Its age and condition render it beyond rehabilitation. After exhaustive engineering reviews, including thorough examination of every alternative, we now know, without question, exactly what must be done. A new modern dam must be constructed. This is the most cost-effective and practicable solution to containing this huge mass of toxin-laced sediments for the next 100+ years.

We all agree – a strong, secure, and durable Lake Conestee Dam is critical to protecting the Reedy River, and potable water supplies and natural resources downstream. Our Reedy River stakeholder community has a choice to make. We can work together and choose to avert certain disaster. Or, we can let this essential piece of infrastructure, now more vital than ever, continue to crumble.

Declarations of "it is not our problem," and deferring to others to "take care of it," are proven pathways to certain failure. We all own this challenge. The call to action is resounding. We must all step up, upstream and downstream partners, local, state, and federal agencies, responsible polluters, and other stakeholders, with commitment, resourcefulness, and investment. We must find the resources to do this right, and do it now. Alternatively, we can continue adrift, in blissful disregard, and spend a lot more later on, picking up the pieces.

Consider this. If we have advance warning of an imminent disaster, but fail to act on that knowledge and the opportunity to prevent a catastrophe, whom among us will be held responsible?

Dr. Dave Hargett has been involved in the 'Conestee Project' and the issues presented in this White Paper since the mid-1990s. He has been the principal investigator and/or project director on all studies conducted on the Lake Conestee Site and Dam since 2000. He is an independent consultant on water resources and environmental issues.

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